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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/079,479

02/22/2002

Gottlieb-Georg Lindner

215150US0

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06/18/2004

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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT

PAPER NUMBER

1754

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,479

Applicant(s)

LINDNER ET AL

Examiner

Ngoc-Yen M. Nguyen

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 3 and 8-20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-2, 4-7 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Applicant's election with traverse of Group I and silica species in the reply filed on April 21, 2004 is acknowledged. The traversal is on the ground(s) that no example or reason was given to support the Examiner's conclusion. This is not found persuasive because the reasons for the restriction requirement were clearly stated in the previous office action and no example was required to support such requirement. Applicants have not pointed out any deficient in the reasons provided by the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claims 3, 8-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and non-elected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on April 21, 2004. It should be noted that on page 3 of the instant specification, the metal salts are added into the SiO_2 structure to obtain silicates (note first full paragraph on page 3).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As disclosed in the instant specification, electrolyte can be added prior to or during the simultaneous addition (or metering) of aqueous silicate solution and an acid.

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However, since electrolytes are not incorporated into the amorphous silica structure (note instant specification, page 2, last paragraph), it is unclear how the electrolyte can be present in the final silica product.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Türk 4,001,379.

Türk '379 discloses a process for the production of fine-grain, amorphous, high structure silicic aci comprising the steps of precipitating a silicic acid by heating an aqueous alkali-metal silicate solution to a temperature between 70 and 100°C, then adding an acid or an acidic-acting substance or a mixture of said acid and acid-acting substance together with further alkali-metal silicate to the heated solution, thus causing the mixture to pass first through an alkaline phase and then through an acid precipitation phase, whereby a gradual transition of the silicate to an intermediate hydrated silica sol and thereafter gradual conversion of the hydrated silica sol by flocculation to a silicic acid suspension occurs in said alkaline phase and these steps being carried out with the alkali number of the reaction mixture is maintained substantially constant throughout the said alkaline precipitation phase at a value within

the range of 10 to 40 (note claim 1). In Example 19, the acidification was carried out up to a pH of 3.5 (note column 15, lines 54-56).

From Table VII, the product of Türk '379 has DBP number (ml/g) of 3.10 or 324 g/100g (with density of DBP = 1.046 g/cm^3 , note column 6, lines 58-60), BET of $246 \text{ m}^2/\text{g}$.

The silicic acids of Türk '379 are useful for many types of applications, particularly as matting agents, as carriers for insecticides, as carriers for animal feed additives, etc. (note column 7, lines 33-45).

For the Choline chloride absorption, CTAB surface area and the DBP/Choline chloride absorption, Sears number, since product of Türk '379 is produced by a process comprising the same positive process steps as those of the process of the claimed invention, the product of Türk '379 would inherently have the same properties.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Türk '379.

Türk '379 discloses a product as mentioned in the above rejection.

Türk '379 further teaches that the precipitation may be effected in the presence of a neutral salts (note column 4, lines 53-54). Such neutral salts are considered as "electrolytes". It would have been obvious to one skilled in the art to optimize the amount of the such neutral salts in the process of Türk '379.

In Example 26, it appears that Türk '379 teaches the use of the silicic acid as carrier for choline chloride. Thus, it would have been obvious to one skilled in the art to optimize the properties of the silicic acid of Türk '379 in order to provide a good carrier for choline chloride.

For the other values of surface areas, DBP absorption, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the instantly claimed ranges through process optimization, since it has been held that there the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stan Silverman be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.


Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
June 14, 2004